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10/573,282

03/23/2006

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EXAMINER

MACCHIAROLO, PETER J

ART UNIT

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2879

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|---|---|--|
| Office Action Summary | Application No. 10/573,282 | Applicant(s) NISHITANI ET AL. | |
| | Examiner PETER J. MACCHIAROLO | Art Unit 2879 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The reply filed on 03/04/2008 consists of changes to the specification and to the claims, and further, the reply consists of remarks related to the prior rejection of claims in the previous Office Action. The above have been entered and considered. However, pending claims 1-15 are not allowable as explained below.

Election/Restrictions

Newly amended claims 7-12 and 15 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

This application contains claims directed to the following patentably distinct species:

Species A; directed to the embodiment with the protective layer having electrons with energy level 4 eV or less below a vacuum level (see at least claims 1-6, 13 and 14).

Species B; directed to the embodiment with the protective layer having electrons with energy level of more than 4 eV below a vacuum level (see at least claims 7-12 and 15).

The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

There is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another

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species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 7-12 and 15 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, and 6, are rejected under 35 U.S.C. 102(b) as being anticipated by

Applicant cited Kimura (JP 2001332175: “Kimura”).

Regarding claims 1-3, and 6, Kimura discloses at least in figure 1, a plasma display panel in which a protective layer (MgO layer 15) covers a dielectric layer (14) covering electrodes (12,13) in discharge cells (not labeled) and faces a discharge space filled with a discharge gas (Xe), wherein the discharge gas includes at least one selected from the group consisting of Xe and Kr, and in the protective layer (15), an electron band including at least electrons having energy level of 4 eV or less below a vacuum level is formed within a forbidden band in energy bands (see at least the abstract).

The Examiner notes that chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, (in this case, Kimura discloses the protection layer mainly comprises MgO and is made with the same method and materials, including an oxygen deficit) the properties applicant discloses and/or claims are necessarily present. See MPEP 2112.01 and *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658(Fed. Cir. 1990).

Claims 1-4, 6 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by previously cited Nakahara (USPN 6242864: “Nakahara”).

Regarding claims 1-4, 6, and 13 Nakahara discloses at least in figure 4, a plasma display panel in which a protective layer (18) covers a dielectric layer (17) covering electrodes (X,Y) in discharge cells (30) and faces a discharge space filled with a discharge gas (Xe), wherein the discharge gas includes at least one selected from the group consisting of Xe and Kr, and in the protective layer (18), an electron band including at least electrons having energy level of 4 eV or less below a vacuum level is formed within a forbidden band in energy bands.

The Examiner notes that chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, (in this case, Nakahara discloses in at least col. 5, ll. 11-17 and col. 10, ll. 37-64 the protection layer mainly comprises MgO with silicon impurities and is made with the same method and materials, including an oxygen deficit) the properties applicant discloses and/or claims are necessarily present. See MPEP 2112.01 and *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658(Fed. Cir. 1990).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura in view of Applicant cited Akiyama et al (JP 2003 272533: "Akiyama").

Regarding claim 5, Kimura is silent to including Ge or Sn being added to the MgO.

However, Akiyama teaches at least in the abstract that adding Ge or Sn reduces the starting voltage of the overall display.

Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Kimura and adding Ge or Sn to reduce the starting voltage of the overall display.

Regarding claim 14, Kimura discloses in at least paragraph 5 that the MgO includes an oxygen deficit.

Response to Arguments

Applicant's arguments filed 03/04/2008 have been fully considered but they are not persuasive.

First, it appears Applicant alleges that even though the protective layer of claim 1 has the same chemical formula as the protective layers of Kimura and Nakahara, Applicant's protective

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layer is created by a completely different method from that of the protective layer of Kimura and Nakahara, and provides a unique protective layer as described in Claim 1 of the present application which is not the same as the protective layer of Kimura and Nakahara.

However, the methods of Kimura and Nakahara vary only slightly from Applicant's method of manufacturing. Furthermore, it appears that the slight difference in manufacturing will not unexpectedly change the energy level as recited in claim 1. Applicant is reminded that arguments of counsel cannot take the place of factually supported objective evidence. See, e.g., *In re Huang*, 100 F.3d 135, 139-40, 40 USPQ2d 1685, 1689 (Fed. Cir. 1996); *In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984). See also MPEP 2145. Rebuttal evidence may consist of a showing that the claimed compound possesses unexpected properties. *Dillon*, 919 F.2d at 692-93, 16 USPQ2d at 1901. A showing of unexpected results must be based on evidence, not argument or speculation. Therefore, since no factual evidence has been presented to support this allegation of unexpected results, the rejections to claim 1 are deemed proper.

Regarding claims 5 and 14, Applicant alleges that the Examiner failed to provide a *prima facie* obviousness. However, as Applicant admits on page 13 of the remarks, Akiyama was used to teach that adding Ge and Sn to the Magnesium oxide will reduce starting voltage in a PDP. This is proper *prima facie* obviousness as per MPEP 2141.

Since claims 7-12 and 15 have been withdrawn above, no response is deemed necessary.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Macchiarolo whose telephone number is (571) 272-2375. The examiner can normally be reached on 8:30 - 5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571) 272-2475. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

/Peter Macchiarolo/
Primary Examiner, Art Unit 2879
(571) 272-2375